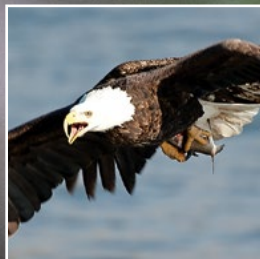


Enjoying Missouri's *Birds*



*A Beginner's
Guide to
Birding*



by James D. Wilson and James P. Jackson

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Birds
A Beginner's Guide to Birding

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Table of Contents

Why We Should Care About Birds 3

Tools for Birding..... 4

What to Notice About Birds 6

Features to Note..... 8

Other Clues to Identification 9

Habitats 10

Seasonal List of the Standard Birds of Missouri 12

Unusual Birds 28

Favorite Missouri Birding Areas 30

Attracting Birds to Homes and Gardens 33

The Basics of Bird Behavior..... 35

Top 10 Frequently Asked Bird Questions..... 37

Birding Organizations..... 39

MDC Publications..... 41



American
white pelican

Why We Should Care About Birds

Birds lift our spirits with their powers of flight, their brilliant plumages, their songs, and their appealing antics. They are among the most widespread, visible, and colorful creatures in all of nature, and can be seen in every habitat from home gardens and farms to prairies, forests, and wetlands. Missouri's birds vary in wingspan from about 3 inches for the ruby-throated hummingbird to 9 feet for the American white pelican, and in weight from $\frac{1}{8}$ -ounce for the hummingbird to about 30 pounds for the trumpeter swan. Even their odd names — such as coot, snipe, and prothonotary warbler — have special appeal.

There are an estimated 10,000 species of birds in the world. Of these, more than 900 occur in North America and more than 400 have been recorded in Missouri. In addition to the 170 species that regularly nest in Missouri, we are visited by other species that migrate between nesting grounds to the north and wintering grounds to the south, as well as those that wander from the east and west.



Ruby-throated hummingbird

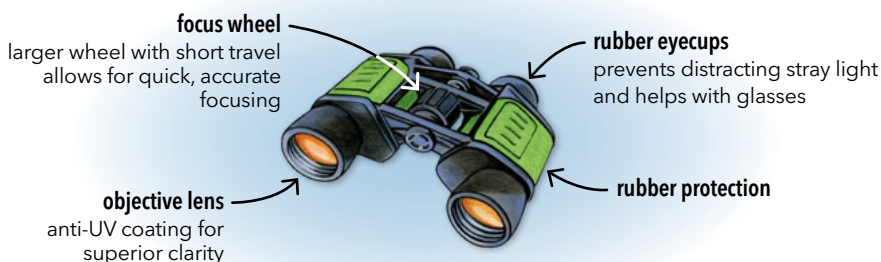


The great variety among birds makes seeing and learning about them a delightful and endless challenge. But where and how do we observe the various kinds of birds? The “where” suggests exploring a variety of habitats in different parts of Missouri. The “how” suggests carrying a pair of binoculars and an identification field guide. As you will discover, birdwatching, or birding, is one of the most enjoyable outdoor pursuits anywhere.

Tools for Birding

There are essentially only two tools for birding, both of which should be carried on all outings: binoculars and a bird identification field guide.

Binoculars: The design features should incorporate right eyepiece focusing to adjust for individual eye differences, plus central focusing to adjust for various distances. A pair of numbers ranging from approximately 6 x 30 to 10 x 50 is typically shown next to the right eyepiece; the first of these shows magnification power and the second indicates diameter of the objective lens in millimeters. The larger the diameter, the brighter the image. Most popular among experienced birders are the binoculars designated as either 8 x 42 or 10 x 42. Those larger than 10 x 50 tend to be overly bulky and difficult to hold steadily. Depending mainly on lens quality, binoculars for birding can range in price from \$50 to more than \$1,000. Be aware that the cheapest binoculars can also be lower in quality, leading to eye strain that can quickly drain all of the fun from birding adventures.



Bird identification guide books: The three guide books recommended here are each illustrated in color, show range maps for all species, and contain a birder's checklist in the back. They are standards in the field and are available at most bookstores.

***National Geographic Field Guide to the Birds of Eastern North America*,** edited by Jon L. Dunn and Jonathon Alderfer. This 432-page, full-color guide details 619 species that occur east of the Rocky Mountains and contains 560 new range maps, plus illustrated accounts for 85 casual and accidental birds, and an appendix listing 70 rarities.

***The Sibley Field Guide to Birds of Eastern North America: Second Edition*,** by David Allen Sibley, 2016, Alfred A. Knopf, 466 pages, full color. This book covers all birds east of the Rocky Mountains and north of Mexico.

***Birds in Missouri*,** by Brad Jacobs, 2001, Missouri Department of Conservation, 376 pages, full color, 354 bird illustrations, including migrants, breeding and winter resident species, with useful bird identification tips, habitat illustrations and bird-related information. Textbook-sized book.

Bird Identification Apps and Websites:

Most bird identification apps charge a fee, but it's often a good investment. Apps are comparable to the cost of a field guide book and have the added advantage of providing songs and calls.

Merlin Bird ID, by Cornell Lab of Ornithology. This free app provides information on the birds of North and South America, Europe, Asia, Africa, and Australia. All birds include a variety of color photos, range maps, songs, and calls. Bird ID Wizard and photo upload capability help you identify unknown sightings based on your location and time of year, and you can easily share photos and recordings of your sightings. This app was built to pair with the eBird app – see Page 32 for more information.

Audubon Bird Guide, by National Audubon Society. This free app is a complete field guide to over 800 species in North America. Species accounts include photos, range maps, songs, and calls.

AllAboutBirds.org, by Cornell Lab of Ornithology. This website is a free online field guide, providing photos, natural history, range maps, and similar species. Other bird-education resources are available from Cornell at **academy.allaboutbirds.org**.

MDC Field Guide (nature.mdc.mo.gov/discover-nature/field-guide). This online field guide provides basic information on birds, mammals, fish, invertebrates, reptiles and amphibians, plants, trees, and shrubs.

eBird Quiz (ebird.org/quiz), by Cornell Lab of Ornithology. Would you like to practice your bird ID by photos or sounds before heading out? Try the free online eBird Quiz. This quiz pulls information from millions of bird sightings uploaded to the **eBird.org** website to customize a quiz based on your location and time of year – and each quiz is different.

Other useful resources:

Spotting scopes are popular with more experienced birders and are typically designed to magnify an object 20 to 60 times. Lenses can be purchased separately and are interchangeable. Zoom lenses are available. Spotting scopes are most practical for identifying birds across the wide-open areas of marshland, mud flats, and lakes. Due to their narrow fields of view and the bulkiness demanded by their high-power magnification, they must be mounted on sturdy tripods to avoid shaky images.



What to Notice About Birds

Every bird species exhibits its own identification clues, including all of the following: size and shape, color and field marks, songs and calls, behavior traits, and habitats where they are most likely to be found. Some species can be identified from just a few clues. Others require careful observation of every detail and every trait.

How big is a certain bird compared to one you already know, such as ...



a house sparrow?



a robin?



a crow?

Is it ...



slender as a mockingbird?



chunky as a meadowlark?

Is its bill ...



**cone-shaped,
as a cardinal's?**



**fine,
as a warbler's?**



**thicker,
as a vireo's?**

Are its wings shaped like those of ...



a Forster's tern?



a northern bobwhite?



a rough-legged hawk?

Is its tail like that of ...



a barn swallow?



an eastern bluebird?



a blue jay?

When feeding does it ...



catch insects during short flights like a great crested flycatcher?



catch insects during long flights like a chimney swift?

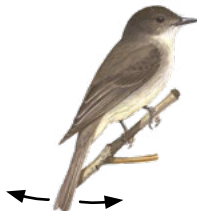


glean food from the bark of trees like a white-breasted nuthatch?

Does it ...



cock its tail like a house wren?



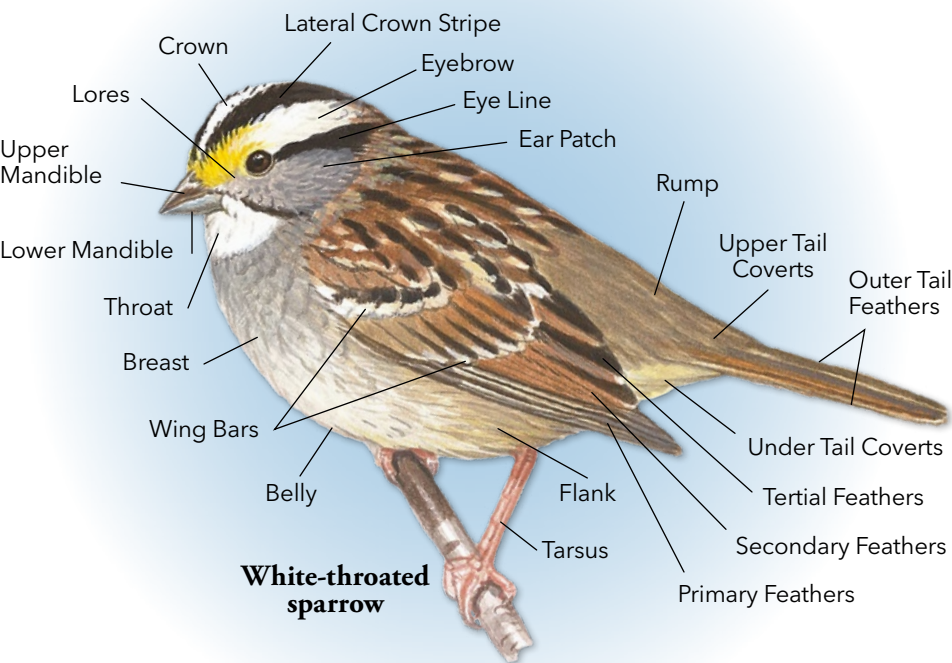
flip its tail like an eastern phoebe?



bob its whole body like a Louisiana waterthrush?

Features to Note

Because birds are active, observation time can be brief. In order to look up the bird later, the observer must try to quickly note features while the bird is in view. Wing bars, eye lines and eye rings, breast markings, tail spots, and bill and leg color can usually separate even very similar birds.



Examples of...

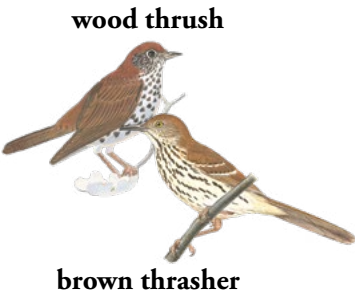
**eye ring
or eye line**



**plain wing
or wing bars**



**breast spots
or breast streaks**



Other Clues to Identification

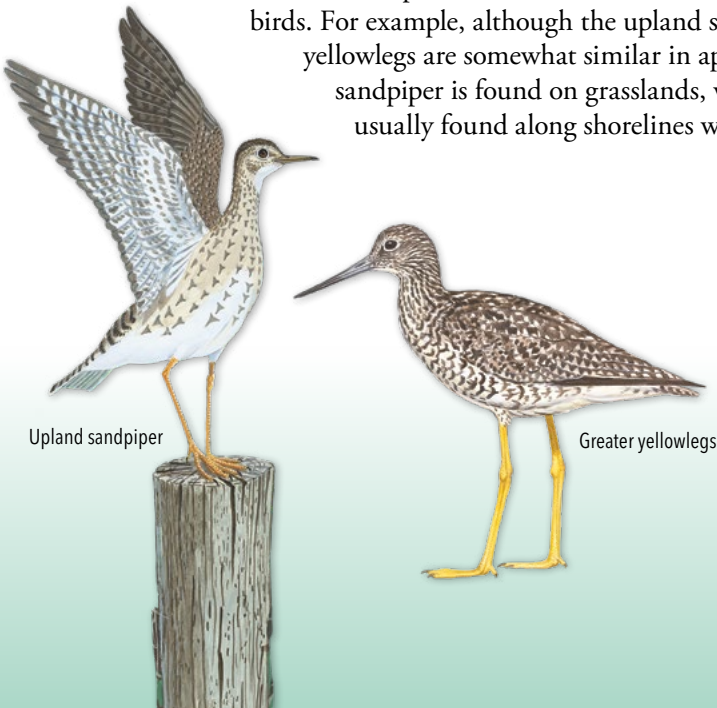
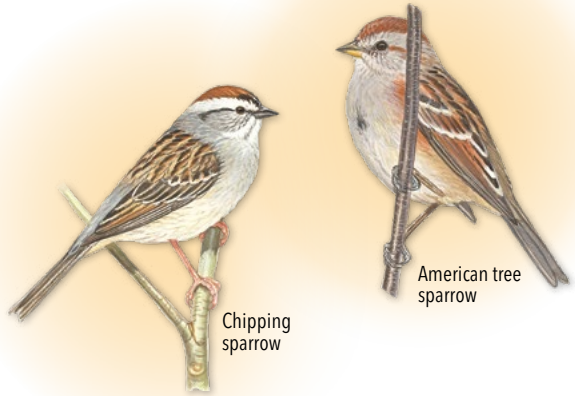
Knowing what to expect WHEN:

One of the clues to identifying birds is to know what to expect seasonally. For example, the chipping sparrow on the left and the American tree sparrow on the right look similar. Both have wing bars, eye lines, and plain breasts. The chipping sparrow, however, is a summer resident, while the American tree sparrow occurs in Missouri only in winter. The chart on pages 13 to 27 shows which species to expect on a specific month and season.

Knowing what to expect WHERE:

Each species of bird is associated with a particular habitat or habitats. Habitats usually have certain vegetative or landform characteristics that provide the species food and shelter.

Knowing the habitat associations of a species enables you to know where to look for it. Generally, the more habitats you visit, the more kinds of birds you will see. An understanding of habitat associations also will enable you to know what to expect where, and can, therefore, be used to identify birds. For example, although the upland sandpiper and greater yellowlegs are somewhat similar in appearance, the upland sandpiper is found on grasslands, while the yellowlegs is usually found along shorelines when in Missouri.



Habitats

Missouri birds use five general habitats: grasslands, towns and backyards, shrubby areas, forests, and wetlands. The habitat in which the bird is most likely to be sighted is indicated within the chart on pages 13 through 27.

Grasslands

These are open areas dominated by grass, such as pastures, hayfields, and native prairies. Typically, fences, powerlines, and a few shrubs and trees provide perches. Birds include killdeers, eastern kingbirds, horned larks, eastern bluebirds, dickcissels, vesper and grasshopper sparrows, eastern and western meadowlarks, red-winged blackbirds, and American goldfinches. Often you may see red-tailed hawks, American kestrels, mourning doves, and barn swallows in flight over grasslands.



Towns and Backyards

This habitat is characterized by lawns, gardens, scattered trees, hedges, shrubs, houses, high-rises, grain elevators, and warehouses. Familiar occupants are rock and mourning doves, common nighthawks, chimney swifts, hummingbirds, phoebes, purple martins, house wrens, mockingbirds, robins, cardinals, chipping sparrows, Baltimore orioles, and nonnative European starlings and house sparrows.



Shrubby Areas

This habitat is densely vegetated, often with small trees, brush, weeds, briars, and vines. Familiar occupants include Carolina wrens, gray catbirds, brown thrashers, white-eyed vireos, blue-winged warblers, prairie warblers, common yellowthroats, yellow-breasted chats, American tree sparrows, field sparrows, and song sparrows.



Forests

Birds favoring large forests include pileated woodpeckers, wood thrushes, ovenbirds, and scarlet tanagers; those associated with the understory include Acadian flycatchers, Kentucky warblers, and American redstarts; and those associated with the forested river's edge include red-shouldered hawks, northern parulas, and cerulean warblers.



Wetlands

Wetlands may have shallow water for dabbling ducks and waders, which might include teal, egrets, and herons; mud flats for shorebirds, such as sandpipers and plovers; and open water for terns, gulls, and diving ducks, including scaup and mergansers. Marshes accommodate bitterns, rails, and red-winged blackbirds, and forested shores play host to Louisiana waterthrushes and green herons.



Seasonal List of the Standard Birds of Missouri

The following chart lists those bird species that tend to occur in Missouri every year. The sequence and the groupings of the names are based on the species' genetic relationships to each other. The same arrangement will be found in field guides and other bird lists.

Group: The group name shown vertically on the left is generally the common name of the order or family to which the species is classified. Order names are used from the beginning of the chart through woodpeckers. The remainder of the chart, beginning with flycatchers, is the order commonly referred to as "songbirds." The species within this order are grouped as families.

Species Name: The names used are the official common names as designated by the American Ornithological Society. These are occasionally changed as more is learned about a species' genetics.

Seasonal Status: Following each species' name is a bar that indicates when the species occurs in Missouri, seasonally. A bar that extends through the summer months (the nesting season) indicates that the species is a regular breeder in Missouri.

Abundance Status: The height of the bar indicates the species' relative abundance during a particular time of the year. There are four different heights that correspond, generally, to the frequency with which the species might be detected in the habitat where it is most likely to be found. Bar height from thickest to thinnest indicates:

Abundant — Several likely to be detected on every visit.

Common — At least a few detected on most visits.

Uncommon — Detected on fewer than half of the visits.

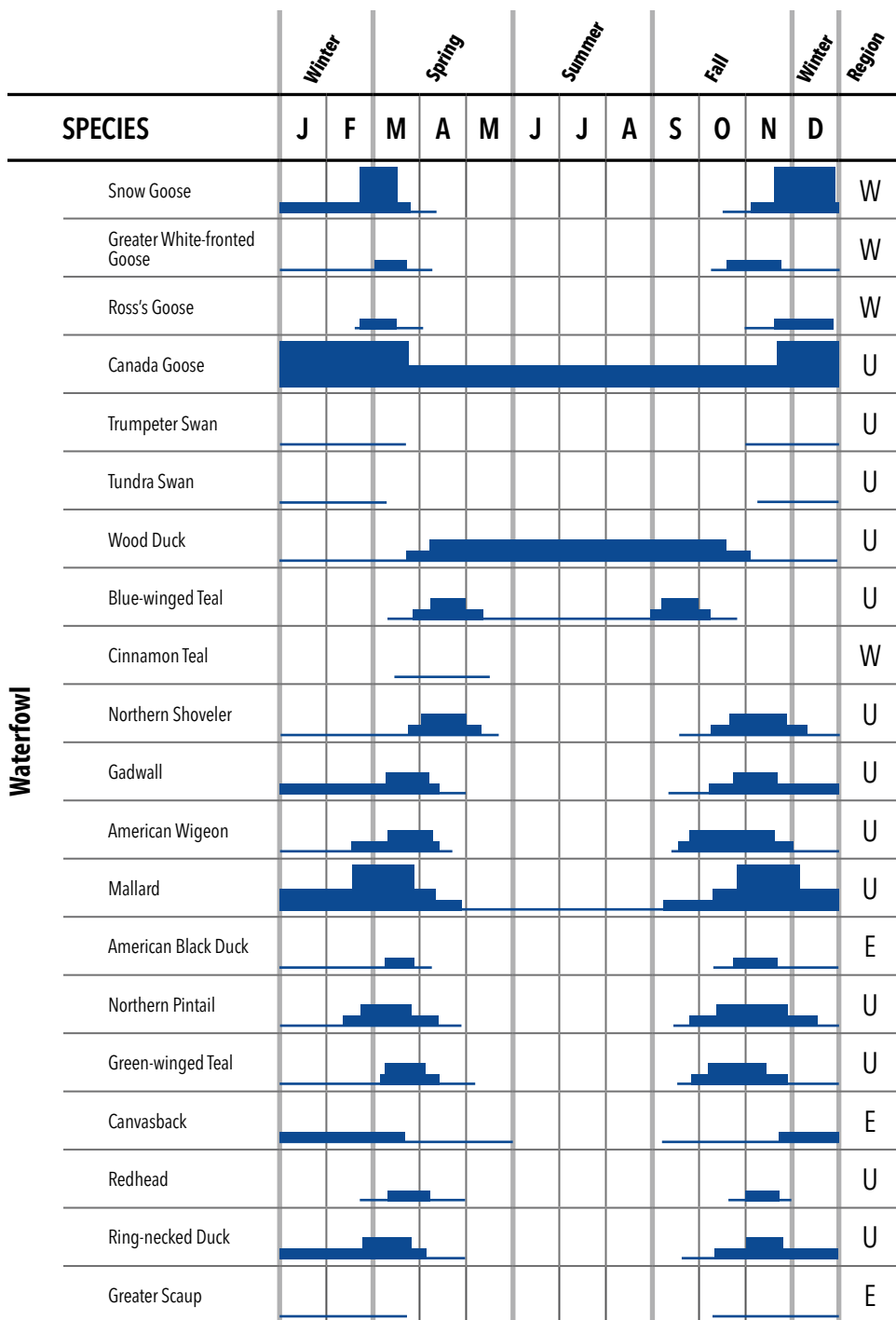
Rare — Detected on fewer than one out of 10 visits.

Habitat Association: The bar is color coded to indicate in which of the habitats (described on pages 10 and 11) the species is most likely found. Realize that some species are specialized to a particular habitat, while others occur in more than one.

Regional Distribution: A symbol to the right of the bar indicates the region of Missouri where the species is most likely to be seen.

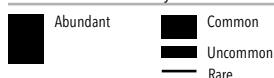
The chart was developed primarily from *The Status and Distribution of Birds of Missouri, 2nd edition*. <https://kuscholarworks.ku.edu/handle/1808/30959>

This is not a comprehensive list of all birds reported in Missouri. For the Annotated Checklist of Missouri Birds from the Missouri Birding Society, visit mobirds.org/Birds/MOChecklist.aspx.

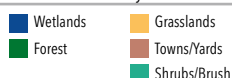


Relative

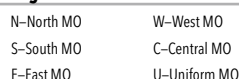
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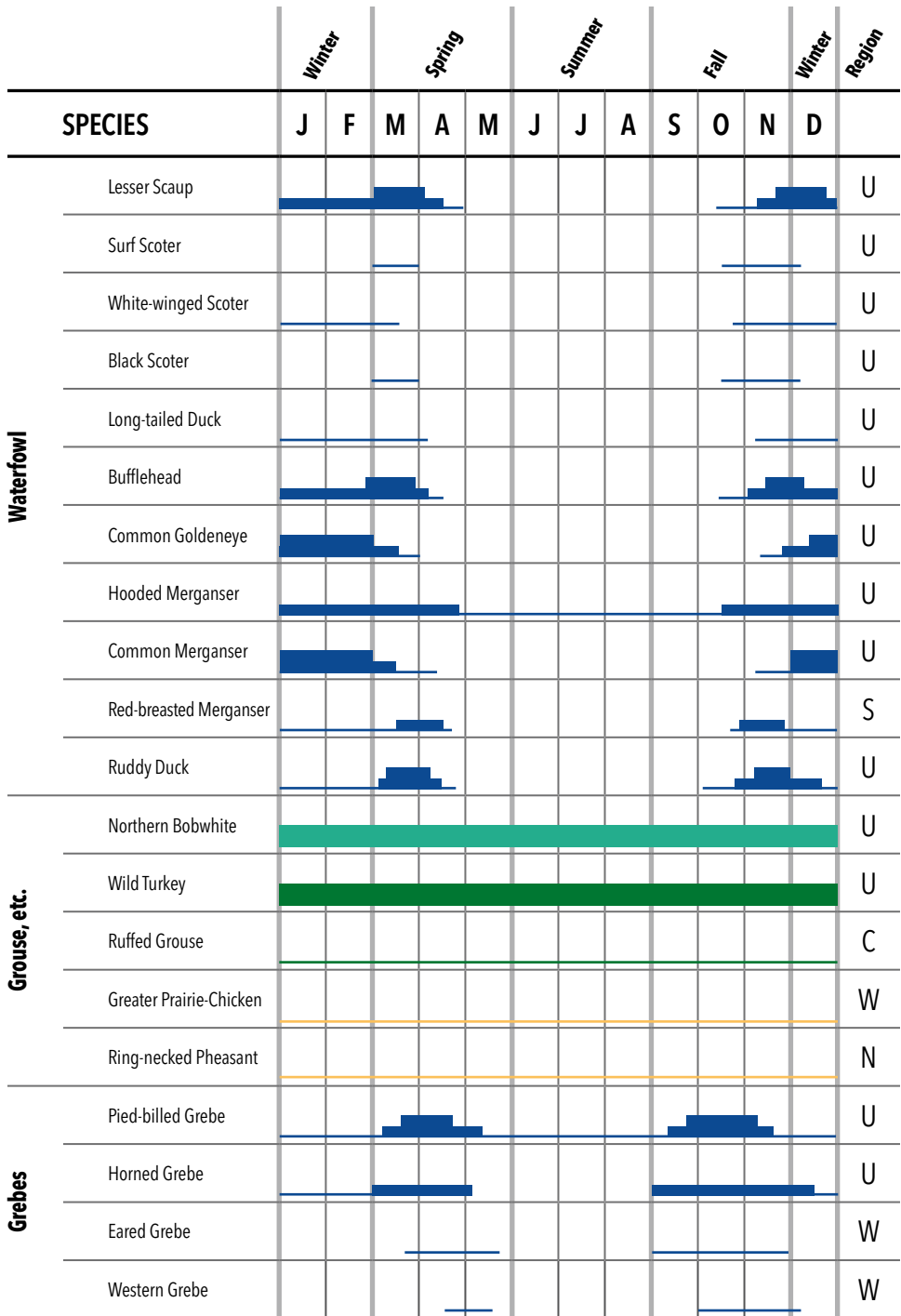


Habitat: indicated by line color



Region of Greatest Abundance





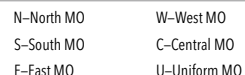
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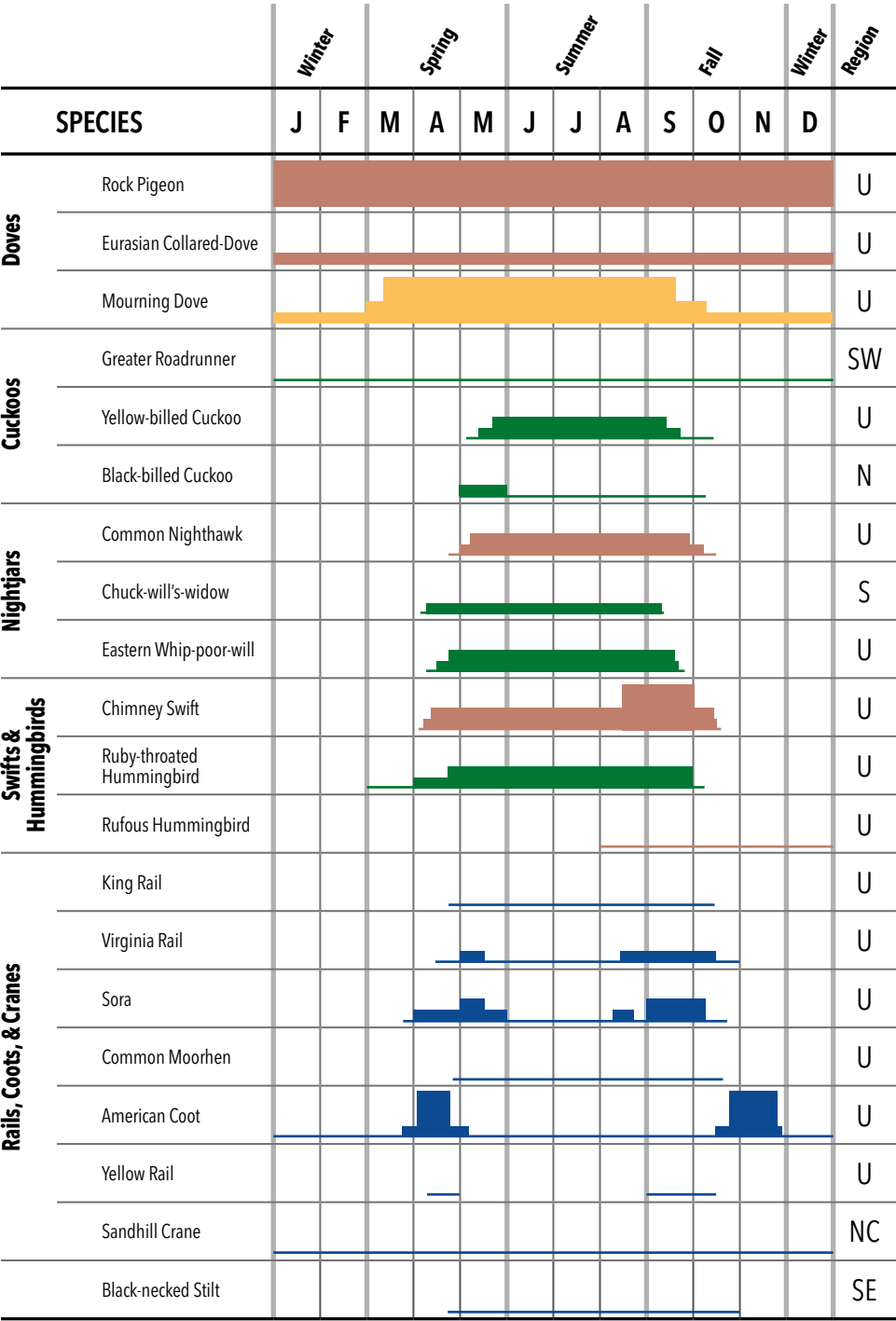


Habitat: indicated by line color



Region of Greatest Abundance





Relative Abundance: indicated by line width

Abundant

Common

Uncommon

Rare

Habitat: indicated by line color

Wetlands

Forest

Grasslands

Towns/Yards

Shrubs/Brush

Region of Greatest Abundance

N-North MO

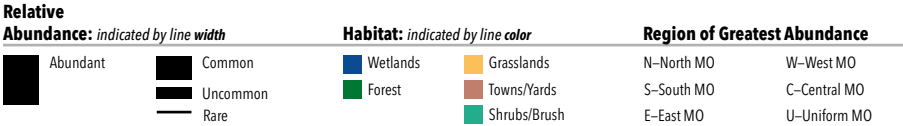
S-South MO

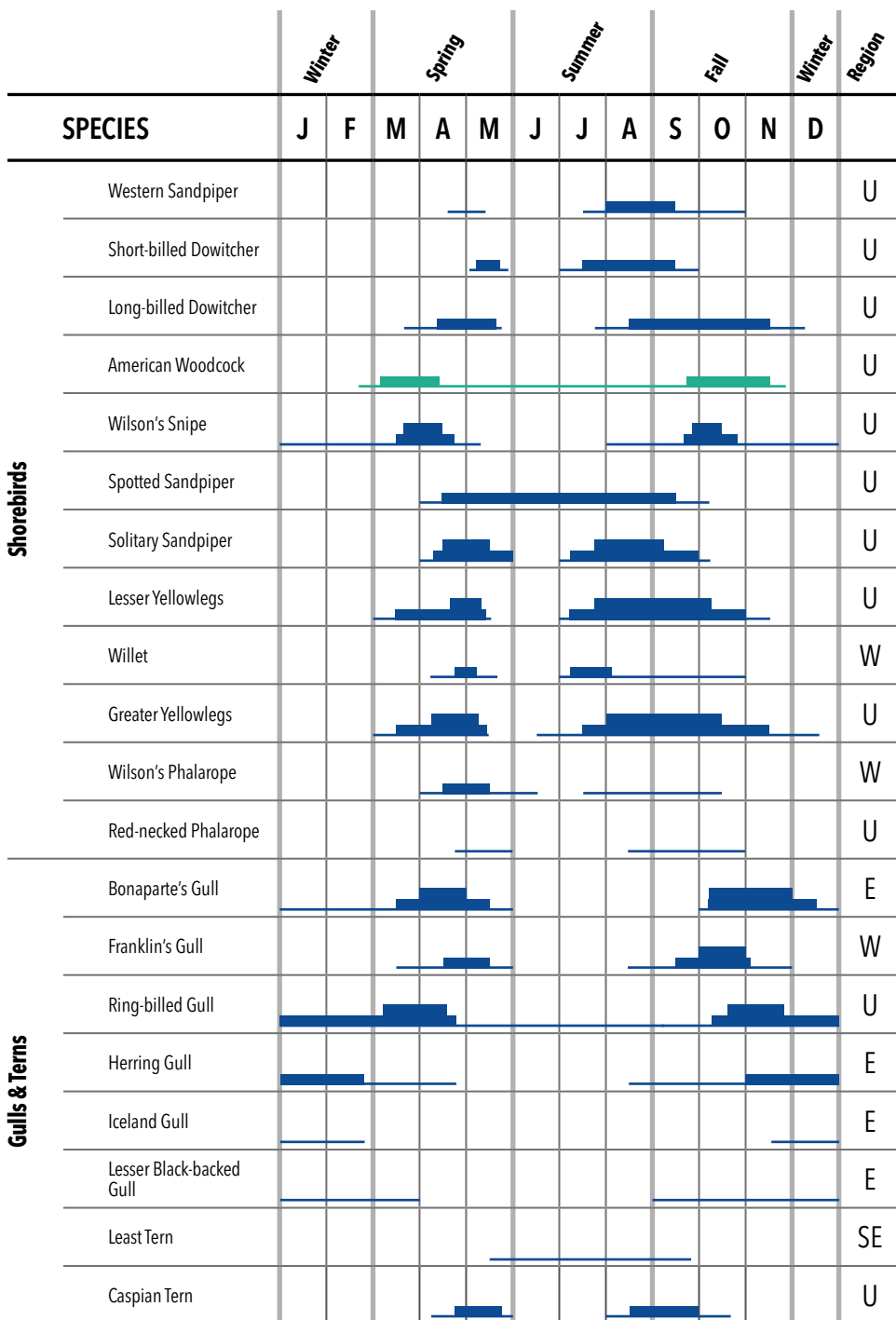
E-East MO

W-West MO

C-Central MO

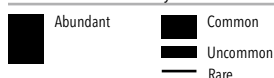
U-Uniform MO



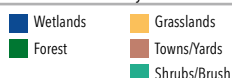


Relative

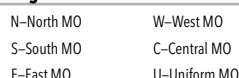
Abundance: indicated by line width

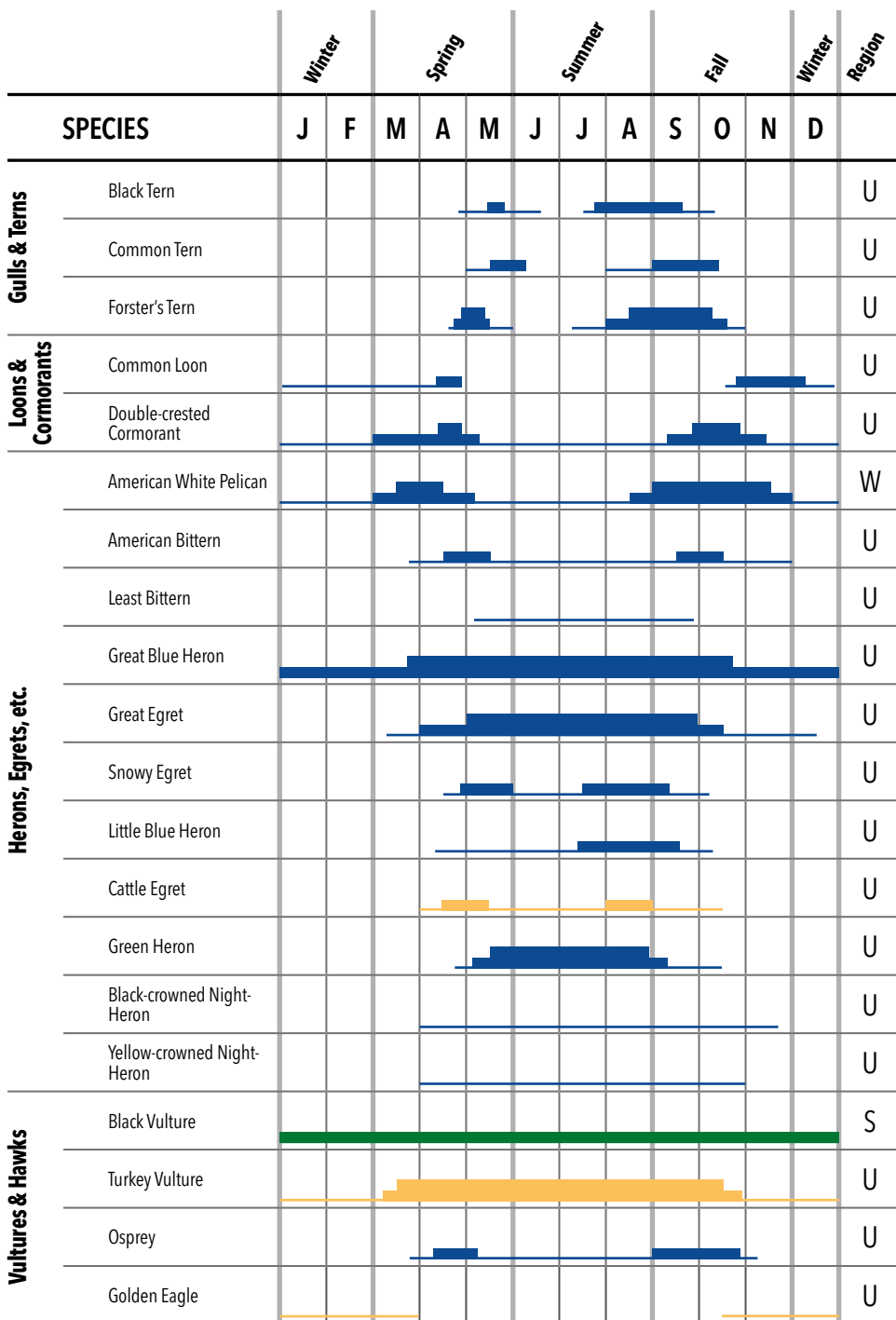


Habitat: indicated by line color

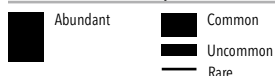


Region of Greatest Abundance

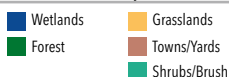




Relative Abundance: indicated by line width

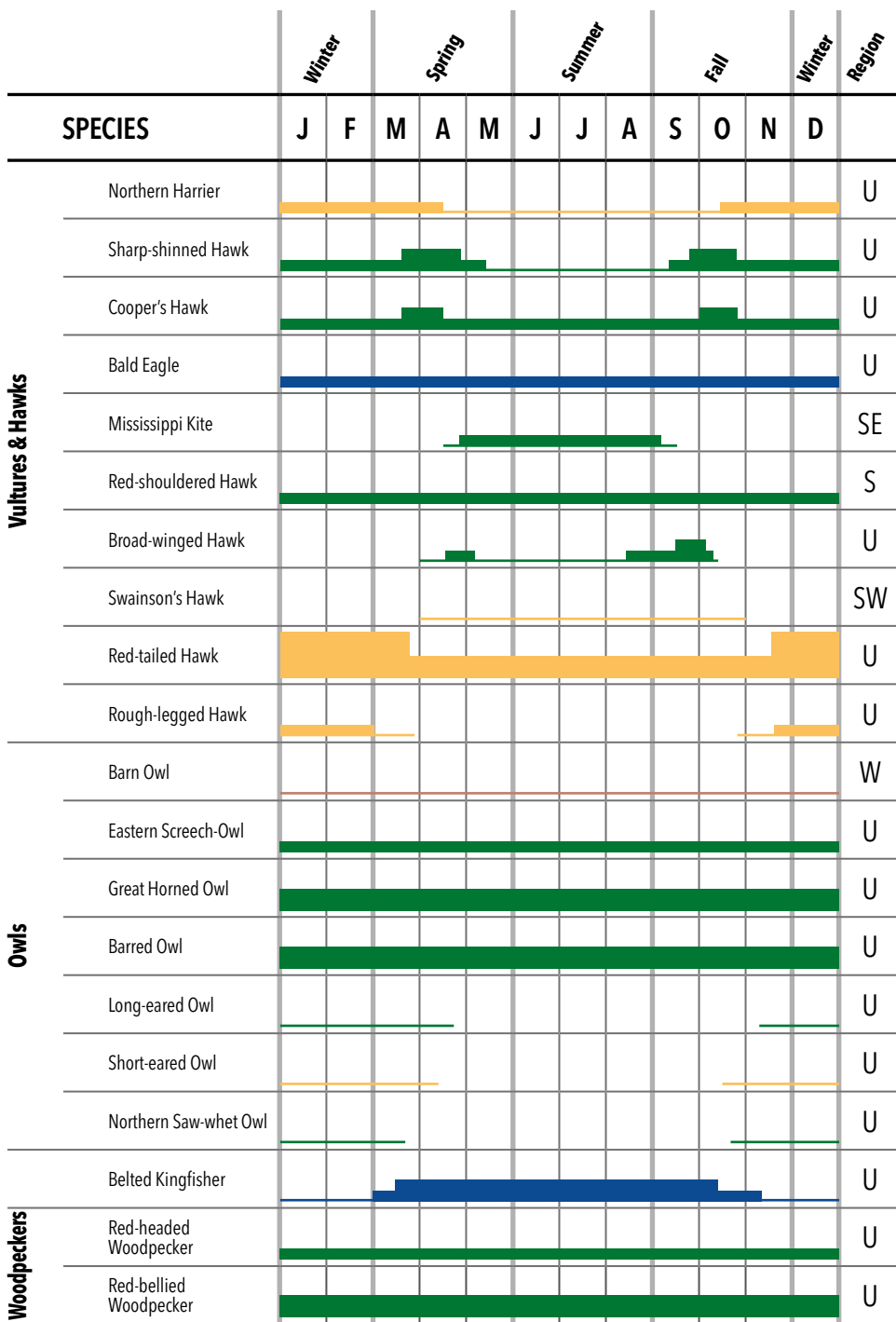


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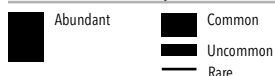


Region of Greatest Abundance

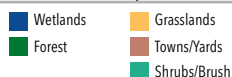




Relative Abundance: indicated by line width

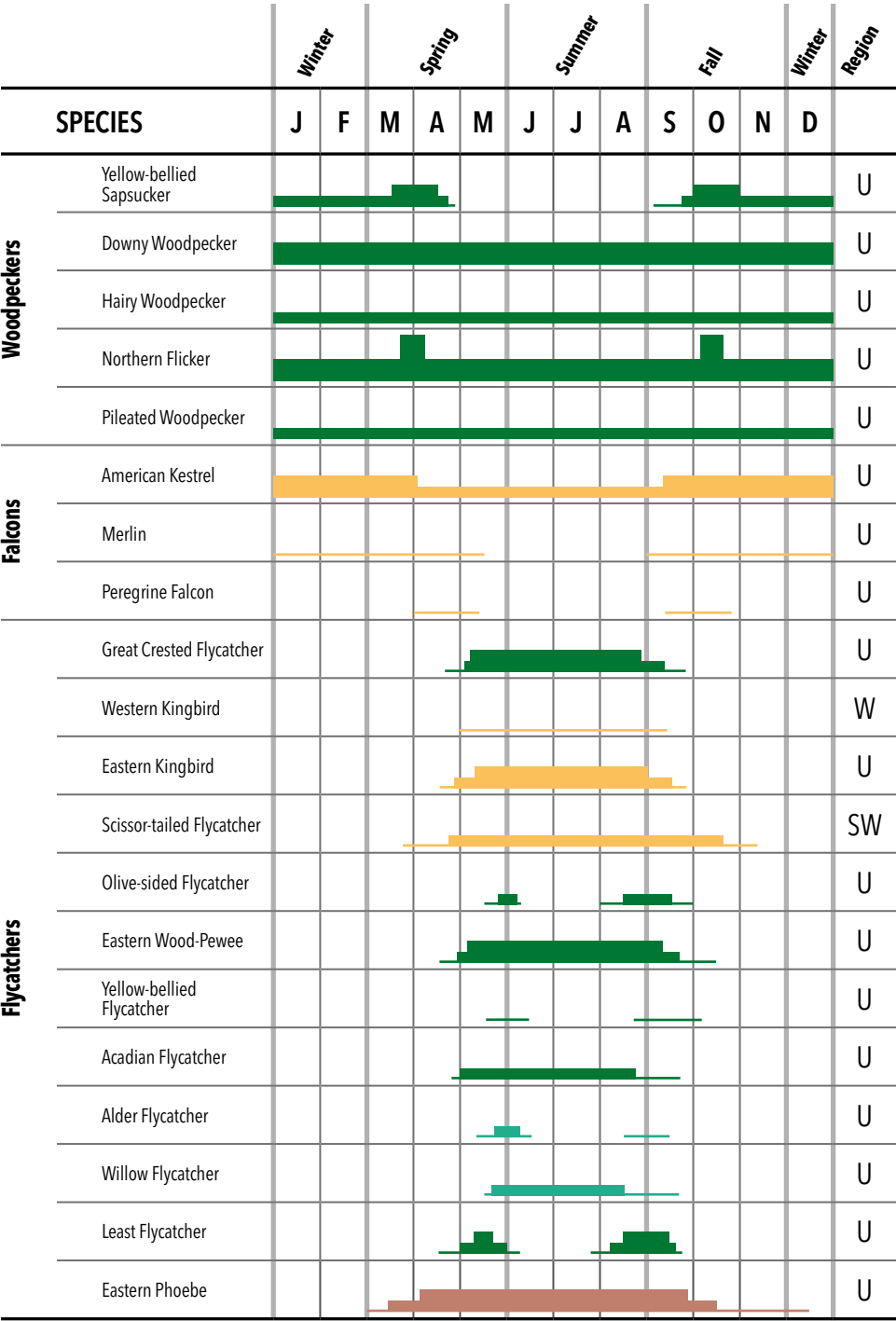


Habitat: indicated by line color



Region of Greatest Abundance





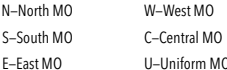
Relative Abundance: indicated by line width

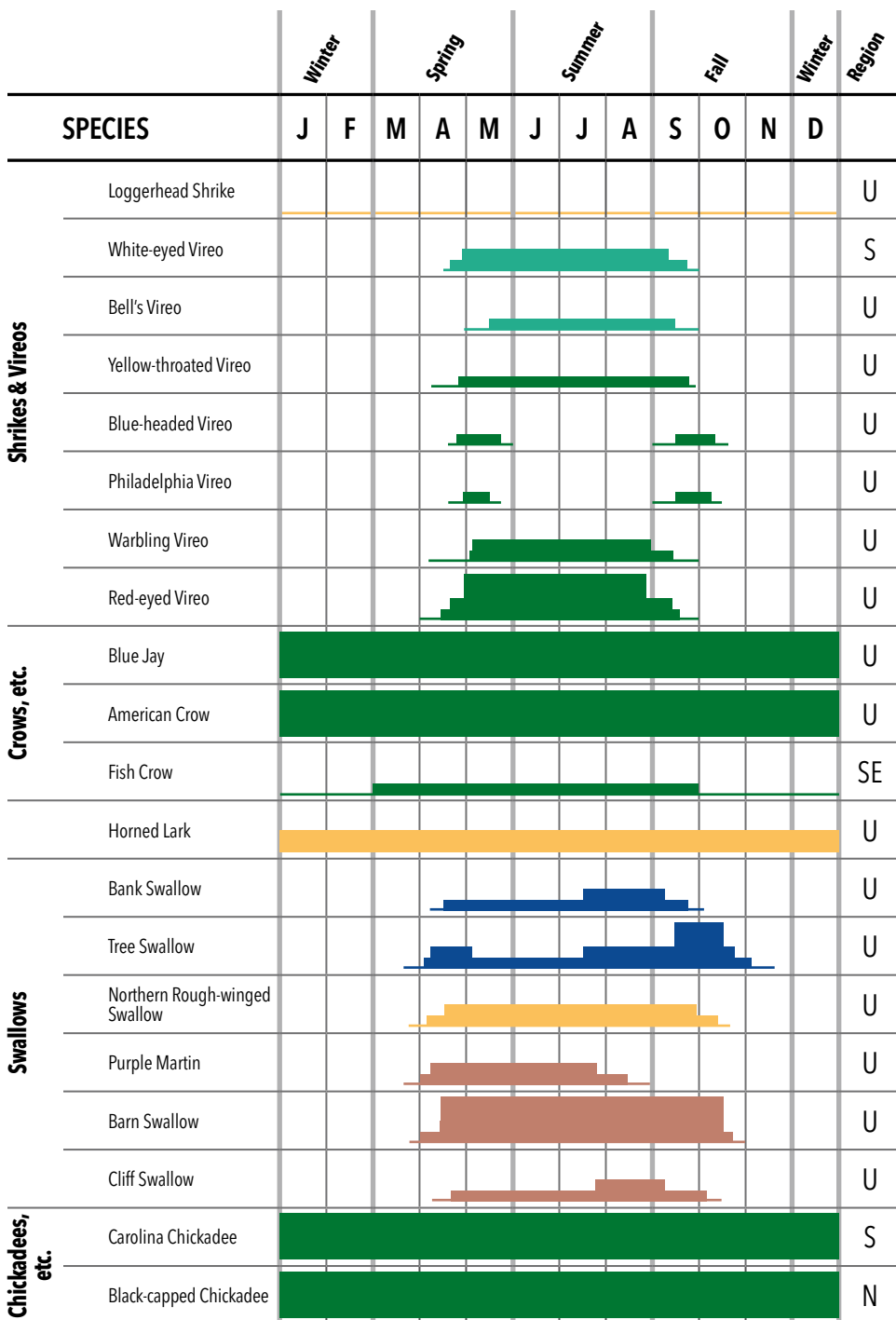


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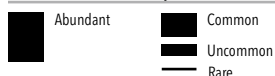


Region of Greatest Abundance

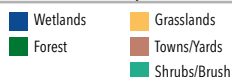




Relative Abundance: indicated by line width

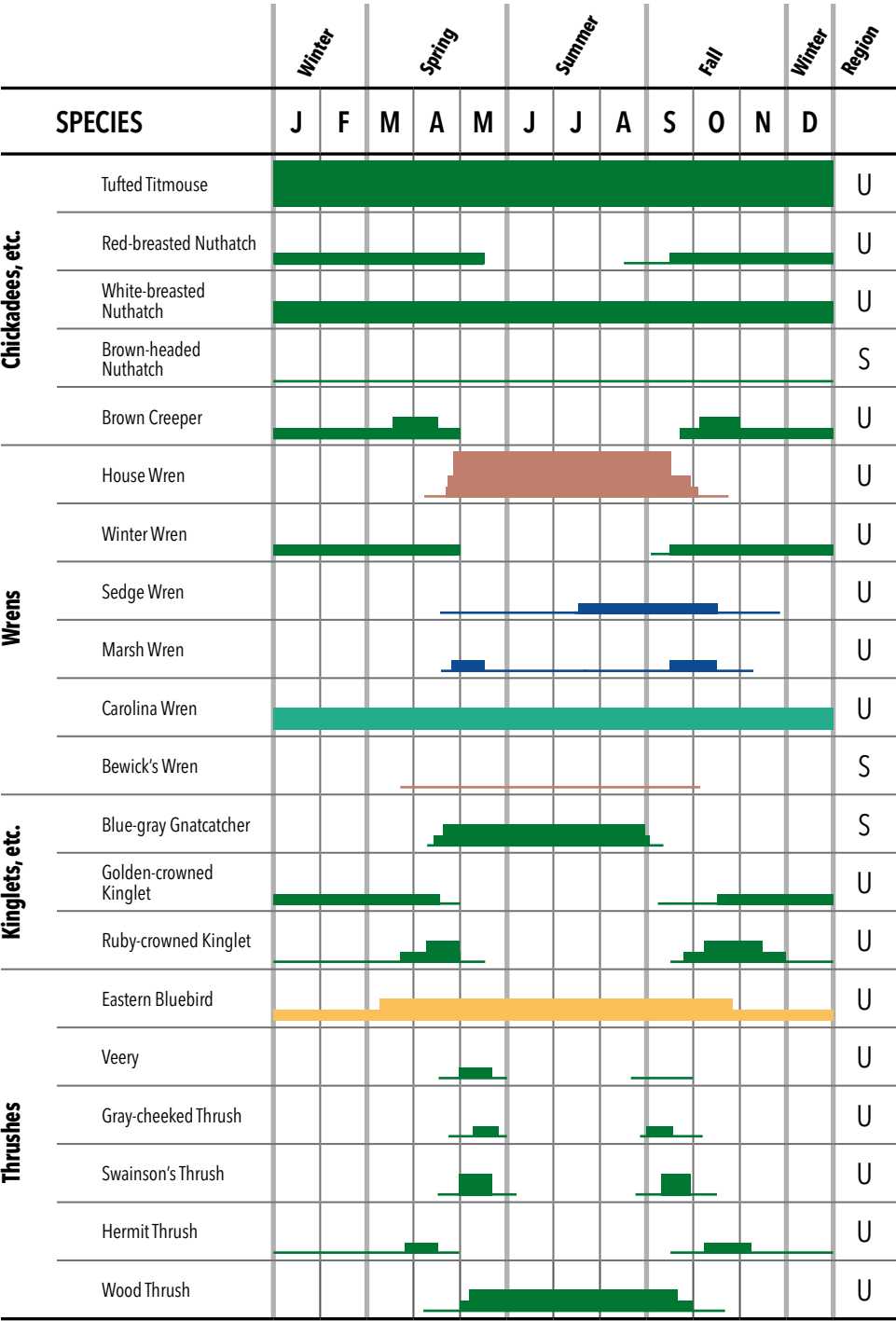


Habitat: indicated by line color



Region of Greatest Abundance





Relative Abundance: indicated by line width

Abundant

Common

Uncommon

Rare

Habitat: indicated by line color

Wetlands

Forest

Grasslands

Towns/Yards

Shrubs/Brush

Region of Greatest Abundance

N-North MO

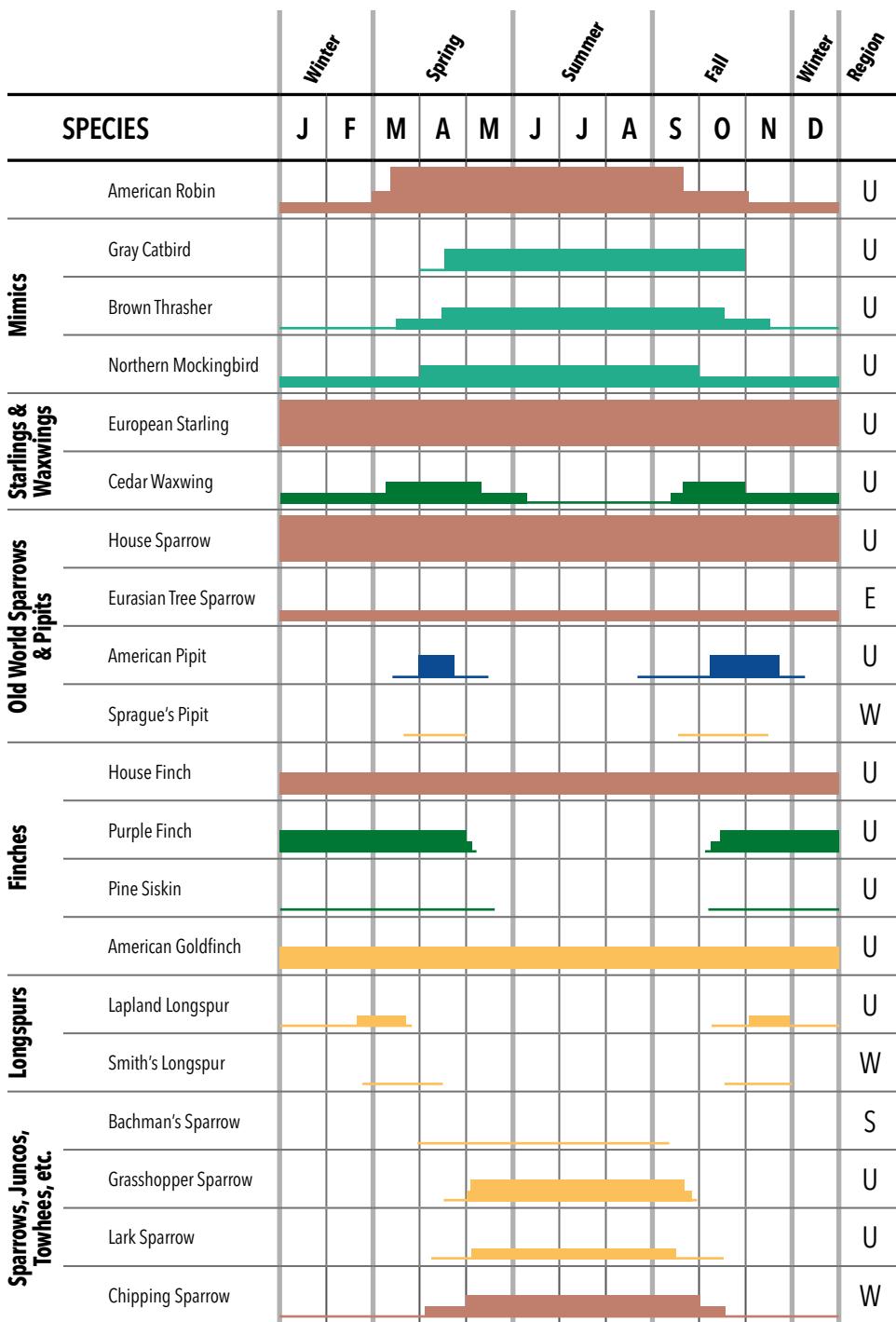
S-South MO

E-East MO

 W-West MO

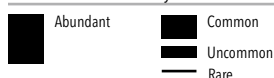
 C-Central MO

 U-Uniform MO

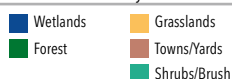


Relative

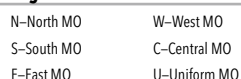
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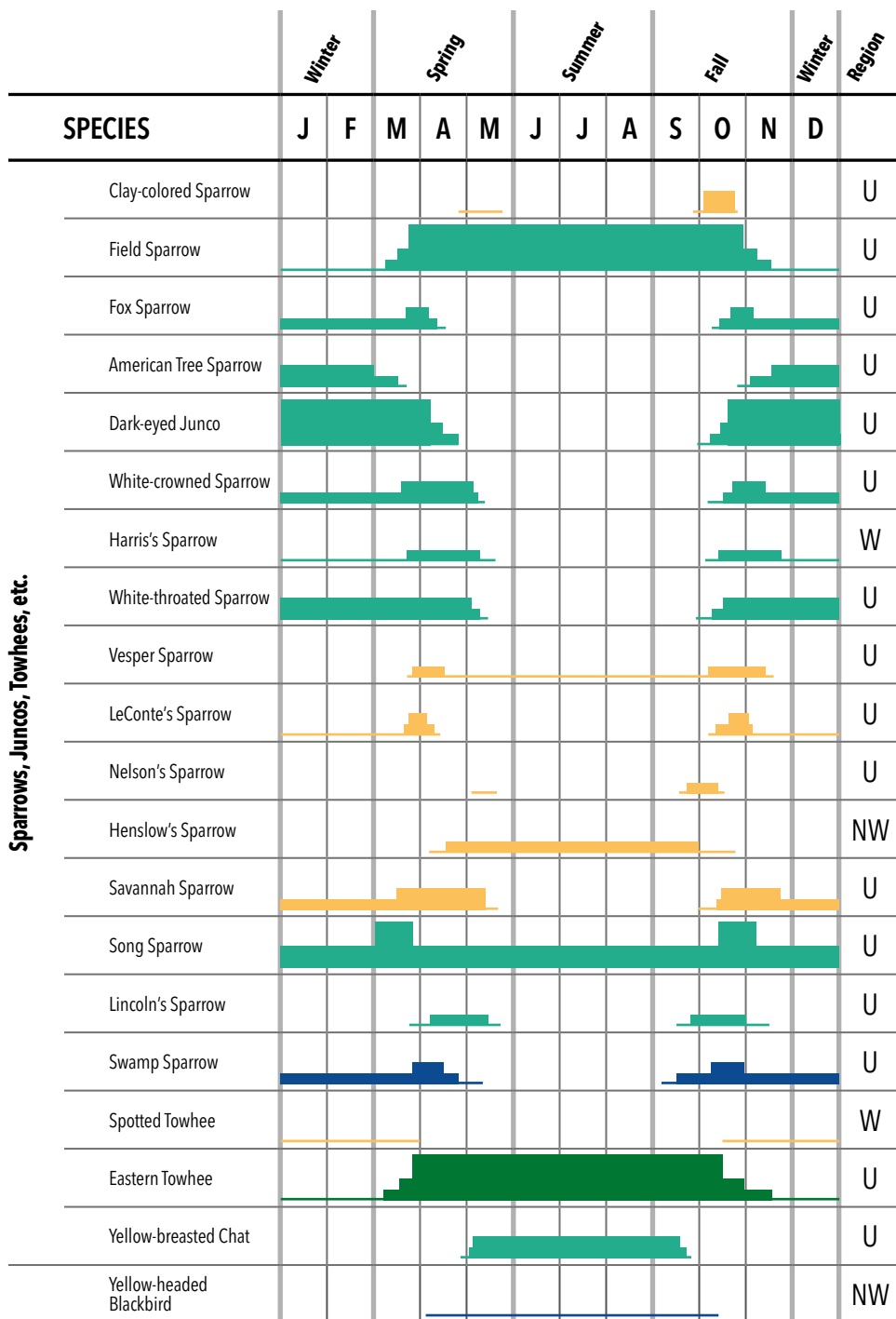


Habitat: indicated by line color



Region of Greatest Abundance





Relative

Abundance: indicated by line width



Abundant



Common



Uncommon



Rare

Habitat: indicated by line color

Wetlands



Forest



Grasslands



Towns/Yards



Shrubs/Brush



Region of Greatest Abundance

N-North MO



S-South MO



E-East MO



W-West MO

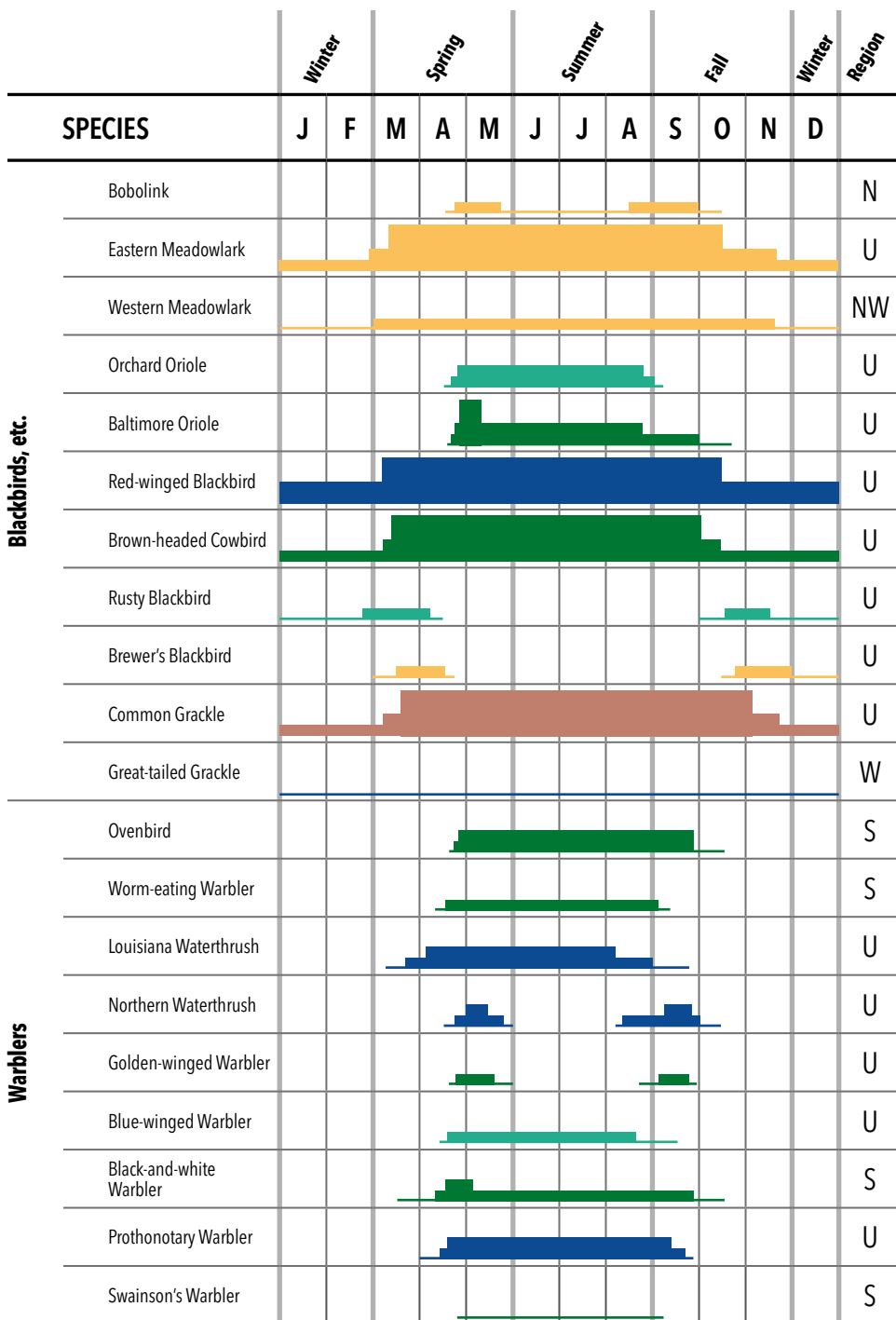


C-Central MO



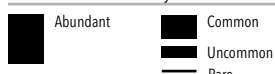
U-Uniform MO



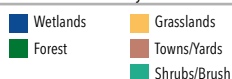


Relative

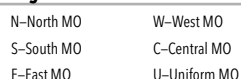
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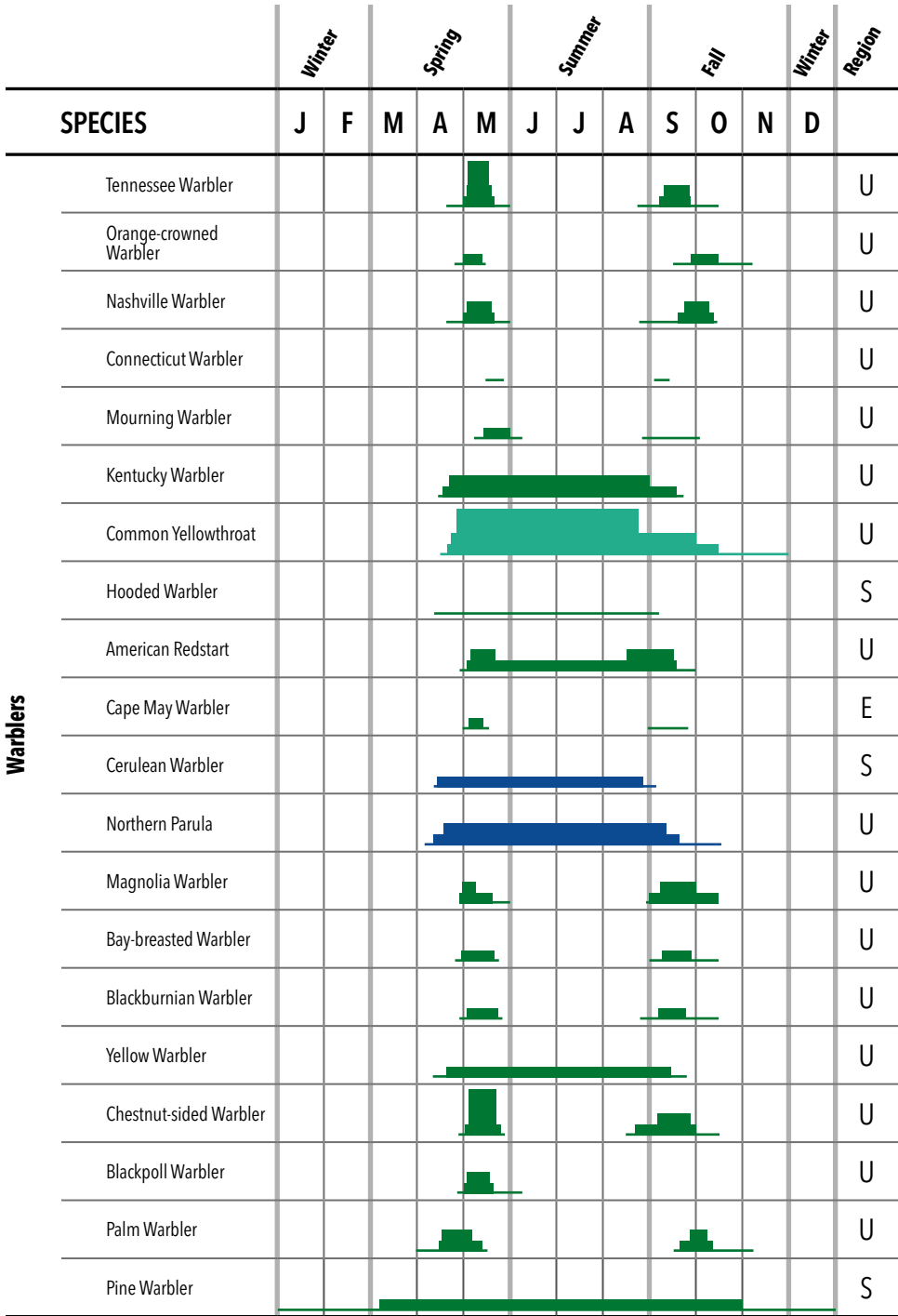


Habitat: indicated by line color



Region of Greatest Abundance





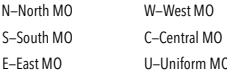
Relative Abundance: indicated by line width

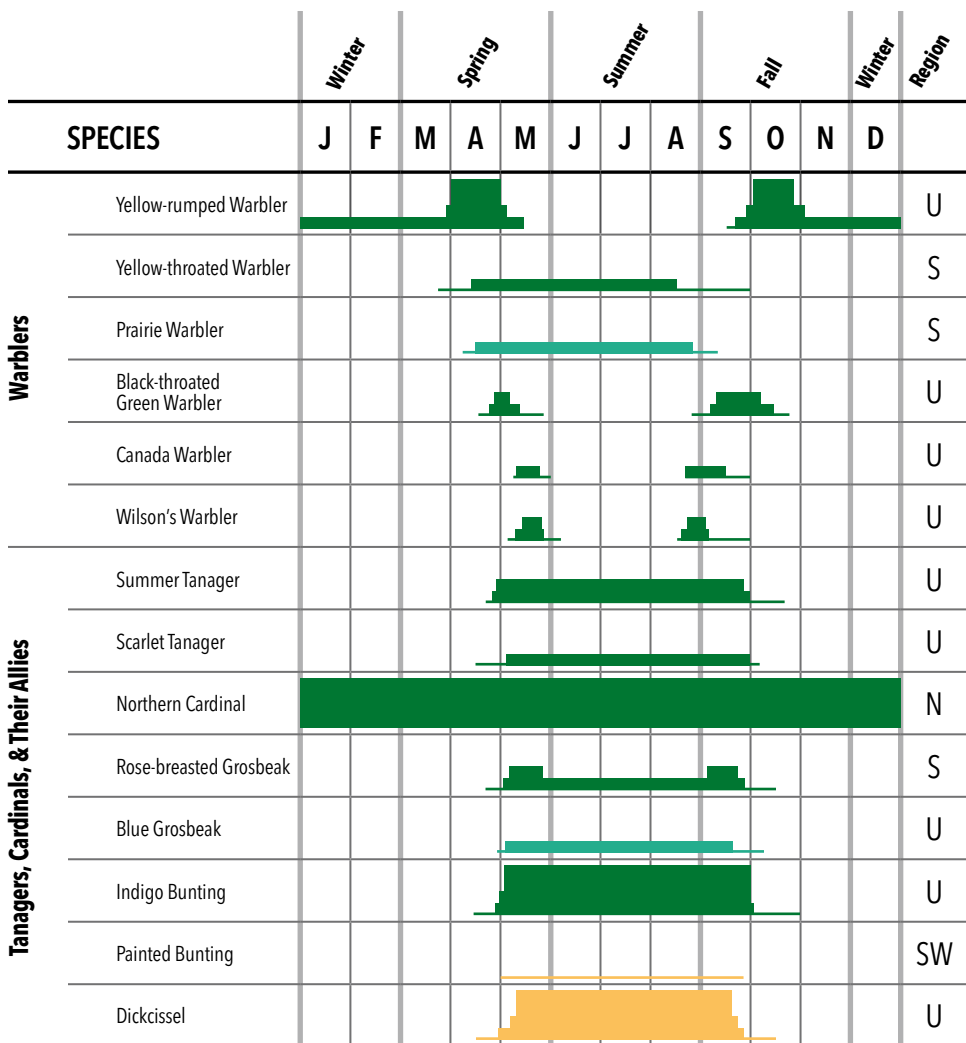


Habitat: indicated by line color



Region of Greatest Abundance





Relative

Abundance: indicated by line width



Habitat: indicated by line color



Region of Greatest Abundance



Unusual Birds

The following bird species do not occur in Missouri every year. The majority are detected once or twice every few years. Some (*) have been recorded fewer than five times throughout the state's history.

Black-bellied whistling-duck
Fulvous whistling-duck
Brant
Barnacle goose*
Eurasian wigeon
Mottled duck*
Garganey*
Harlequin duck
Barrow's goldeneye
Red-throated loon
Pacific loon
Yellow-billed loon
Red-necked grebe
Clark's grebe*
Band-rumped storm-petrel
Wood stork
Magnificent frigatebird*
Neotropic cormorant
Anhinga
Brown pelican
Tricolored heron
White ibis
Glossy ibis
White-faced ibis
Roseate spoonbill
Swallow-tailed kite
White-tailed kite*
Northern goshawk
Harris's hawk*
Ferruginous hawk
Gyr Falcon*
Prairie falcon
Black rail
Purple gallinule
Whooping crane*
Snowy plover

Whimbrel
Long-billed curlew
Ruff
Red phalarope
Black-legged kittiwake
Sabine's gull
Black-headed gull*
Little gull
Laughing gull
California gull
Iceland gull
Lesser Black-backed gull
Slaty-backed gull*
Great Black-backed gull
Sooty tern*
Pomarine jaeger
Parasitic jaeger*
Long-tailed jaeger*
Band-tailed pigeon
White-winged dove
Inca dove
Common ground-dove
Groove-billed ani
Snowy owl
Burrowing owl
Common poorwill*
White-throated swift*
Green violetear*
Anna's hummingbird
Lewis's woodpecker*
Say's phoebe
Vermilion flycatcher
Northern shrike
Gray jay*
Clark's nutcracker
Black-billed magpie*

Violet-green swallow*
 Rock wren
 Mountain bluebird
 Townsend's solitaire
 Varied thrush
 Sage thrasher*
 Bohemian waxwing
 Chestnut-collared longspur
 McCown's longspur
 Snow bunting
 Black-throated blue warbler
 Hermit warbler*
 Kirtland's warbler*
 Green-tailed towhee

Black-throated sparrow
 Lark bunting
 Baird's sparrow
 Golden-crowned sparrow*
 Western tanager
 Black-headed grosbeak
 Lazuli bunting
 Bronzed cowbird*
 Pine grosbeak
 White-winged crossbill
 Common redpoll
 Lesser goldfinch*
 Evening grosbeak

Former Missouri Birds

The following bird species formerly occurred in Missouri, but are either extinct (*) or otherwise unlikely to be reported in Missouri in the future.

Eskimo curlew
 Passenger pigeon*
 Carolina parakeet*
 Red-cockaded woodpecker

Ivory-billed woodpecker
 Common raven
 Bachman's warbler

What to Do if You're Convinced You've Seen an Unusual Bird

Describe the bird in detail in writing. Draw, photograph, or videotape it or record its sound. Complete a printed or online documentation form available at **mobirds.org/RecordsCommittee/Doc.aspx**. The form will be reviewed by the Missouri Bird Records Committee. To give others a chance to see the bird, record your sighting on **eBird.org** or post on the Missouri Birding Society's MOBIRDS email listserv (available for sign-up at **LISTSERV@PO.MISSOURI.EDU**).



Purple gallinule



Favorite Missouri Birding Areas

While birding can be exciting anywhere, certain areas fulfill the habitat needs for a diversity of species. The public areas listed below and found at the resources listed are among the best in the state for viewing a variety of birds. The numbers preceding them correspond to the numbers on the map above.

1. **Loess Bluffs National Wildlife Refuge** (7,440 acres). An extensive wetland in the Missouri River floodplain, this area abounds in geese, ducks, and shorebirds during the spring and fall migrations. As many as 400,000 snow geese and 600 bald eagles can be seen in late November and early December. Located southwest of Mound City, the east entrance and visitor center is 2.3 miles west of Interstate 29 by U.S. 159.
2. **Swan Lake National Wildlife Refuge** (10,795 acres) and **Fountain Grove Conservation Area** (7,959 acres). In proximity to each other, these prime wetland areas along the Grand River attract waterfowl and shorebirds during migration. White pelicans are common during April and September. Both areas are reached by Missouri Highway 139 south of U.S. 36 and west of Brookfield.
3. **Ted Shanks Conservation Area** (4,025 acres). Stretching nearly seven miles along the Mississippi River, this area provides extensive marshlands and bottomland forests for many types of birds in all seasons. The forests provide nesting habitat for wood ducks and prothonotary warblers. Rails and bitterns may be found in the pools, and egrets and waterfowl are plentiful in spring and fall. Travel 19 miles south of Hannibal on Missouri Highway 79, then one mile east on Route TT.
4. **Eagle Bluffs Conservation Area** (4,428 acres). Situated in the Missouri River floodplain, Eagle Bluffs CA is a unique wetland because it receives part of its water supply from a city water treatment facility. Herons, egrets, and shorebirds can be abundant during September. From Interstate 70 in Columbia, travel south on Missouri Highway 163 (Providence Road) 5 miles to County Road K, then west 5 miles past McBaine.
5. **Riverlands Migratory Bird Sanctuary** (3,700 acres). This U.S. Army Corps of Engineers wetland is prime resting habitat for migrating wetland birds. During winter, it also attracts bald eagles, a wide variety of gulls, and hundreds of trumpeter swans. Take I-270 north of I-70 5.3 miles to U.S. 67. Take U.S. 67 north 11.3 miles to entrance road on the right just before the Lewis and Clark

Bridge and the Mississippi River. The Audubon Center at Riverlands, inside the sanctuary on the left, provides a visitor's center, educational resources, and walking trails.

6. **August A. Busch Memorial** (6,950 acres) and **Weldon Spring** (8,397 acres) **conservation areas**. These adjoining areas are a mix of extensive field and woodland habitats. Busch Memorial CA contains lakes of varied sizes. Birding is generally good from March through early May. From the junction of U.S. 40/61 and Missouri Highway 94, proceed southwest on Highway 94, 1 mile to the entrance on the right side of the road.
7. **Taberville Prairie** (1,680 acres) and **Schell-Osage** (8,634 acres) **conservation areas**. Taberville Prairie CA is habitat for birds such as greater prairie-chickens, upland sandpipers, and Henslow's sparrows. It is located 13 miles north of El Dorado Springs on County Road H. Schell-Osage CA, located 10 miles north of El Dorado Springs, hosts a variety of wetland species. It may be entered from the east via CR-H, then CR-Y, or from the west via CR-AA, then CR-RA.
8. **Hercules Glades Wilderness** (12,413 acres). This portion of the Mark Twain National Forest is a roadless wilderness with foot paths. Its dry, rocky terrain is attractive to prairie warblers and more southwestern species, including greater roadrunners and painted buntings. From U.S. Highway 160 east of Forsyth, drive north 8 miles on Missouri Highway 125.
9. **Ozark National Scenic Riverways** (80,785 acres). This National Park Service property narrowly encompasses the Jacks Fork and Current rivers. It offers excellent woodland and stream birding. From the shore or canoe you will see summering birds, which might include green herons, Louisiana waterthrushes and northern parulas. The area may be accessed by several highways in Carter and Shannon counties.
10. **Mingo National Wildlife Refuge** (21,592 acres) and **Duck Creek Conservation Area** (6,318 acres). These adjoining areas contain extensive forests, swamps, marshes, and bluffs, and support the greatest diversity of birds of any public lands in Missouri. Well over 100 species are present at the peak of spring migration. Northeast of Poplar Bluff, the areas are entered from Missouri Highway 51 north of Puxico.

Finding Your Own Favorite Spot

These online resources will allow you to expand your birding experience — and your life list — by tailoring your outings based on habitats, seasons, and specific species you hope to see.

eBird, Cornell Lab of Ornithology (eBird.org). eBird is a massive online database of birder checklists from across the globe. eBird has changed the game when it comes to tracking bird sightings and has grown so rapidly that it's informing conservation and science across the world. With over 100 million bird sightings uploaded each year via the free eBird app, eBird allows for real-time information on what birds are occurring where you in real-time – a resource that hasn't been available in the history of birding. The accessibility of this mass of real-time information is allowing birders to see more species and helping new birders get started. eBird helps birders find particular species using Species Maps and peruse birds recorded at Hotspots (birding locations) with its Explore tools. Users can set up alerts for rare birds near them and view Abundance Maps and animations that show over 600 species' abundance and movements throughout the year.

Missouri Birding Society Birding Site Guides (mobirds.org/Birding). These site-specific guides give an in-depth, detailed look at the birds that occur at various public land sites across the state.

Attracting Birds to Homes and Gardens

Native planting suggestions: The key to having a yard that is attractive to a variety of birds and other wildlife is to have a mix of various trees, grouped shrubs, vines, and flowers native to Missouri. Oaks, hickories, maples, and cedars are all native trees that have considerable value as cover, nest sites, and singing perches. Tulip poplars and white pine are also good choices. Berry-producing trees and shrubs such as hackberries, hollies, hawthornes, and dogwoods, attract robins, mockingbirds, and cedar waxwings. Grouped shrubs and hedges may provide nesting cover for catbirds and cardinals. Flower and vegetable gardens contribute to insect abundance and diversity, which results in more birds. Small lots can be just as attractive as large ones. If you start now, you soon will have the habitat you desire. To find native plants, shrubs, and trees near you, visit **GrowNative.org**.

Bird houses: Approximately one-sixth of Missouri's breeding bird species nest in cavities that either they find or excavate themselves. Unfortunately, these are often in dead or dying trees that are removed for firewood or because of the hazard they pose. To some extent, bird houses can offset this reduction in natural cavities. See the Bird Publications section of this booklet for information sources on various bird houses. Of course, it is best to leave standing dead trees and snags whenever possible.

Attracting hummingbirds: Missouri's ruby-throated hummingbirds winter in Central America and arrive in Missouri around April 20. They are easily attracted to brightly colored flowers and sugar feeders. The proper solution for feeders is one part sugar to four parts water. Do

not add coloring. Because hummingbirds are quite aggressive toward each other, it helps to hang out several feeders. Ruby-throats begin to depart Missouri in late September and are gone by October 10. **Note:** *Orioles, tanagers, and house finches also might visit these feeders.*

Feeding birds: Many Missourians draw great pleasure from feeding birds. This is most successful in winter, but it is becoming increasingly common to feed birds throughout the year. The primary reason for feeding birds is the pleasure derived from identifying them and enjoying their behavior. Therefore, feeders should be placed where they can be easily viewed.



Preferred foods: The single most successful bird food is black-oil sunflower seed. White proso millet and thistle (or nyjer) seed may attract a few additional species. Mixes composed primarily of millet and milo (commonly sold in grocery stores), cracked corn, and bread crumbs are not recommended because they tend to attract nuisance, nonnative birds such as starlings and house sparrows. Suet (or fat trimmings) can be provided to birds in an onion bag or wire container. This is often suspended from a branch so that it is accessed primarily by clinging birds such as chickadees, nuthatches, and woodpeckers.

Water and other foods: Water for drinking and bathing can be an attractant to birds, especially during lengthy subfreezing conditions. Birds may become accustomed to visiting fresh water before it freezes if it is placed routinely at the same spot, or if a heated birdbath is installed. Raisins, grapes, citrus fruit, and apple slices may increase the variety of bird customers. Meal worms, available from pet stores, may be used in summer for those birds unusual at feeders, such as bluebirds and mockingbirds.

Expected feeder birds: Well stocked and maintained feeders can be expected to attract a wide variety of birds, including mourning doves, blue jays, black-capped chickadees, Carolina chickadees, tufted titmice, red-breasted nuthatches, white-breasted nuthatches, Carolina wrens, European starlings, northern cardinals, blue grosbeaks, indigo buntings, eastern towhees, fox sparrows, song sparrows, white-throated sparrows, white-crowned sparrows, Harris' sparrows, dark-eyed juncos, red-winged blackbirds, common grackles, brown-headed cowbirds, purple finches, house finches, pine siskins, American goldfinches and evening grosbeaks.

Nuisance Animals: The most common pests near feeders are squirrels and raccoons, followed by free-roaming cats and dogs. If you hang your bird feeders from wires and install a baffle (or barrier) along the wire, you may discourage some of these animals. Also, you can place an inverted funnel on supporting posts. Remember, all hawks are legally protected and deserve to be recognized as rightful predatory members of the wildlife community.

The Basics of Bird Behavior

Learning to recognize and attract birds is just the beginning of an enjoyable pastime. Observing the many behaviors of birds can grow into a lifelong fascination. For a start, you may need to consider only their seasonal movements or migrations.

Migrations: Birds are directed in their travels mostly by instinct. Exactly how they find their way, often covering thousands of miles, is a study in itself. Many of our popular songbirds—including most thrushes, flycatchers, vireos, warblers, and orioles—are termed “Neotropical migrants,” which means they migrate to Missouri from the tropics for the summer nesting season only. Others are transients, meaning they merely pass through in spring and fall. Still others, such as dark-eyed juncos and American tree sparrows, are with us only during the winter months. Finally, some of Missouri’s most familiar birds—crows, cardinals, goldfinches, chickadees, and most woodpeckers—remain here as permanent, year-round residents.

American Robins—a typical nesting cycle: Having survived the winter in nomadic flocks, robins show up in our parks and gardens during early March. Each male stakes out a nesting territory by singing and chasing other male robins from an area that instinctively satisfies family needs. Females arrive about a week later and are courted by the males, who display by strutting and shaking their wings. The female is believed responsible for mate selection.

Nesting behavior varies considerably among birds. In the case of robins, both sexes share in building the nest, which is composed of a mixture of mud and grass. Incubation is done solely by the female. This is typical of species in which the male is more colorful and the female more drab. Presumably, the drabness is less conspicuous to nest predators. To ensure that all four to six eggs hatch together, she does not begin to incubate until her entire clutch has been laid. The eggs hatch after only two weeks of incubation.



American robin

Newly hatched robins are blind, featherless, and require intense parental care. Approximately two-thirds of Missouri’s birds, and all our songbirds, have helpless young that are called *altricial*. In contrast, birds such as northern bobwhites, killdeer, and ducks incubate for nearly a month, and hatch chicks that are clothed in down and ready to leave the nest and feed. These young are termed *precocial*.

Nestling robins, like those of all birds, do nevertheless grow rapidly. Fed and brooded by both parents, they are fully fledged and ready to take wing after only two weeks in the nest. By this time, male robins take over the supervision of fledglings while their mates lay another clutch of eggs, often in the same nest. Many species of songbirds typically produce more than one brood per year, though not always in the same nest.

As with wild creatures in general, a species' annual production of young birds reflects the species' annual mortality rate. That is, if the number of individuals of a species are stable, the number that die each year must roughly equal the number that are added by reproduction. Northern bobwhites, which can nest twice in a season with 12 to 15 eggs per nest, therefore are expected to have a high mortality rate. They are vulnerable to many hazards, including nest predation.

Red-tailed hawks, by contrast, nest only once a year and rear two to three young each time. Their long life expectancy compensates for their relatively low reproductive rate. In short, nesting behavior among birds does more than simply entertain us; it is a strategy unique to that species that helps to ensure survival and the passage of genes to subsequent generations.



Northern
bobwhites

Top 10 Frequently Asked Bird Questions

1. **Why aren't there any birds at my feeder?** An absence of feeder birds may be due to an abundance of natural foods. Or sometimes seeds become spoiled or lack “hearts” due to poor development or weevils. Also, the feeder may be contaminated. Wash your feeder and try seed from a different source. Place the feeder so it is not vulnerable to predators.
2. **How do I stop woodpeckers from hammering on my house?** Discontinue feeders that attract woodpeckers. Try placing wind socks, wind chimes, a metal pie pan on a string, or shiny, colorful streamers near and slightly above where the woodpecker is doing damage. Artificial owls and snakes may be worth a try if all else fails. Identify and cover metal objects that woodpeckers hammer on to advertise their territories.
3. **What do I do about the hawk that's eating the birds at my feeder?** Try to remember that hawks are natural predators. This is what they must do to survive. If you still feel guilty about tricking a bird into becoming prey, move the feeder closer to shrubs and trees that they can use as escape cover. You might also discontinue feeding for a while so the hawk will move on.
4. **When should I put up and take down my hummingbird feeder?** Hummingbirds arrive around April 20-25 and depart around October 1-5. A hummingbird feeder can be placed anytime during that period. Most hummers occur in Missouri during the spring and fall migratory periods. September is typically the most satisfying month to feed hummers. There is no evidence that feeding will delay their migration.
5. **Why is that bird fluttering against my window and how do I get it to stop?**
The bird is typically a colorful male (such as a cardinal, bluebird, or robin) who is attempting to drive away what he perceives to be an intruder in his breeding territory. Sometimes the placement of a light surface behind the window will lessen the reflectivity of the window just enough to make the bird stop.
6. **How do I keep birds from hitting my window?** Birds hit windows because they have mistaken the reflection as open space or reflected habitat. Often they are frightened into this error by a hawk or some other surprise. A feeder placed within three feet of a window may prevent birds from building up deadly speed before

the collision. Opaque stickers or film on the exterior of the window pane will help to show birds it is a surface. Birds stunned after hitting windows often revive, but bring pets indoors to give them space.

7. **What do I do with the young bird I see out of its nest?** Leave it alone and keep pets away. Most young birds leave the nest well before they are able to fly. Their parents, who may be rarely seen, will return as needed to feed them. Not only is picking up the bird a violation, it disrupts the bird's opportunity to learn survival skills. On the rare occasions that a featherless young is found on the ground, an effort should be made to replace it in its nest. If a nest has fallen, fasten it in a tree near to where it was found.
8. **What can I do for the injured bird I have found?** If the bird simply suffered a concussion and there are no broken bones, there's a chance for survival. Often, keeping disturbance to a minimum until the bird can revive on its own is the best course of action. Because bird bones are hollow, breaks — especially in the wings and legs — have a poor prognosis. From a population standpoint, efforts to save individuals of short-lived species such as songbirds are not justified.
9. **What can I do about the neighbor's cat?** Ask them to keep it inside most of the time from March through August — the nesting season — or suggest an enclosed outdoor space for the cat. If this is unacceptable, declawing or collar bells may lessen a cat's predatory success; however, even cats that don't kill can intimidate birds. There are an estimated 44 million free-ranging, hunting cats in the United States. Unlike hawks, they are an unnatural threat to birds and devastating to ground-nesting birds.
- 10 **Why are all these dead birds in my yard?** Sometimes several birds can be killed at once when they eat granular insecticides, herbicides, or fertilizers that are not watered well into lawns. Or, the worms, grubs, and insects they consume may be contaminated by these poisons. Diseases such as aspergillosis, salmonellosis, trichomoniasis, avian pox, and house finch conjunctivitis are possible. These are not contagious to humans. Control diseases by keeping feeders and the area beneath them clean or discontinue feeding for awhile.

Birding Organizations

One of the best ways to learn about birds is to become involved with the Missouri Birding Society or local chapters of the National Audubon Society.

Missouri Birding Society
2101 W. Broadway
PMB 122
Columbia, MO 65203-1261

Missouri's National Audubon-affiliated chapters are listed below.
Most chapters take field trips or have programs on birds.

Burroughs Audubon Society of Greater Kansas City (KS and MO metro area)
7300 SW W. Park Road
Blue Springs, MO 64015-7804
816-795-8177

burroughs.org

General email: **mail@burroughs.org**

Conservation issues: **conservation@burroughs.org**

BirdSafe KC window-strike monitoring: **birdsafekc@burroughs.org**

Columbia Audubon Society—Columbia
PO Box 1331
Columbia, MO 65205
columbia-audubon.org

East Ozarks Audubon Society—Farmington
26 Tanglewood Court
Farmington, MO 63640
eastozarksaudubon@gmail.com

Grand River Audubon Society—Jameson
25843 Grate Ave.
Jameson, MO 64647
660-663-9322

Greater Ozarks Audubon Society—Springfield
PO Box 3231 G. S.
Springfield, MO 65808
Email: **AudubonOzarks@gmail.com**
greaterozarksaudubon.org

Midland Empire Audubon Society—St. Joseph
3013 St. Joseph Ave.
St. Joseph, MO 64505

Ozark Gateway Audubon Society—Joplin
305 Bishop
Carl Junction, MO 64834
On Facebook at Ozark Gateway Audubon Society

Ozark Rivers Audubon Society—Rolla
PO Box 429
Rolla, MO 65401-0429
Email: info@ozarkriversaudubon.org
ozarkriversaudubon.org

River Bluffs Audubon Society—Jefferson City
PO Box 2336
Jefferson City, MO 65102
Email: rbas.missouri@gmail.com
sites.google.com/view/riverbluffsaudubonsociety

St. Louis Audubon Society—St. Louis
PO Box 220227
St. Louis, MO 63122
Email: stlaudubon@charter.net
stlouisaudubon.org



Other Missouri-based Bird Conservation Organizations

Missouri River Bird Observatory
mrbo.org

Webster Groves Nature Study Society—Greater St. Louis
PO Box 190065
St. Louis, MO 63119
wgnss.org

MDC Publications

The Missouri Department of Conservation offers the following free literature about birds. Missouri residents may order copies by emailing pubstaff@mdc.mo.gov or writing to Free Publications, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180. Provide the publication title and your shipping address. Additional information can be found on the MDC website at mdc.mo.gov.

Bald Eagles in Missouri — Brochure describes life history, conservation efforts, and when and where to view bald eagles in Missouri.

Missouri's Raptors: Eagles, Hawks, Falcons and Vultures — Booklet includes descriptions and sketches of 19 species.

Bluebirds in Missouri — Booklet includes life history information, nest box plans, and maintenance tips.

Missouri's Purple Martins — Booklet includes house construction plans, management advice and life history information.

Other Birding Publications and Resources

AllAboutBirds.org, Cornell Lab of Ornithology's online field guide to North American bird identification, life history, songs and calls, and videos.

The Bluebird, published by the Missouri Birding Society, mobirds.org/Bluebird; quarterly journal for members of the Missouri Birding Society; includes seasonal summaries of bird sightings and other articles particular to Missouri birds.

Missouri River Bird Observatory, mrbo.org; bird conservation and research non-profit based in central Missouri. Lots of educational webinars and resources available at their website.

BirdWatcher's Digest, bwdmagazine.com; compact bi-monthly magazine features articles on bird behavior and birding.

Peterson Field Guide: Eastern Birds' Nests, by Ned Smith and Hal H. Harrison, 1998; it includes photos and descriptions of the nests of 285 North American bird species.

National Geographic Field Guide to the Birds of North America, by Jon Dunn and Paul Lehman, 2008; field guide.

The Sibley Field Guide to Birds of Eastern North America: Second Edition, David Sibley, 2016; field guide.

The Status and Distribution of Birds in Missouri: Second Edition, by Mark D. Robbins, 2020; published by University of Kansas Biodiversity Institute, Lawrence, KS; primarily details the seasonal occurrence and historic documentation of species as derived from the observations of Missouri birders; not an identification book. Available for free download through KU ScholarWorks at hdl.handle.net/1808/30959.

A Guide to the Birding Areas of Missouri, compiled by Kay Palmer, 1993, published by the Missouri Birding Society; it briefly describes 128 birding sites.

Birds of the St. Louis Area: Where and When to Find Them, compiled by Webster Groves Nature Study Society (WGNSS), 1998, published by WGNSS; a reference to the birds and birding areas within 50 miles of St. Louis.

The Birder's Handbook, by Paul R. Ehrlich, David S. Dobkin, and Darryl Wheye, 1988, published by Simon and Schuster; summarizes the biology of North American species and contains essays on a vast assortment of bird topics; not illustrated as a field guide.

Notes & Sketches



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